

ABSTRACT OF THE DISCLOSURE

Disclosed is a method for partitioning resource spaces, and allocating physical channels and power in an OFDMA-based cellular system. A resource within a slot is partitioned into resource spaces in common in a plurality of adjacent cells, and the partitioned resource spaces are partitioned into resource sets according to sizes of physical channels in the adjacent cells. The physical channels classified by predetermined characteristics are respectively assigned to the partitioned resource sets within the resource space. Further, the resource space for transmitting traffic channels between two different cells is partitioned into resource spaces so that the traffic channels in the same subspace may be collided with each other, and a power control is applied between the collided channels to control the interference from the adjacent cells.